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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,187	04/10/2000	Kazunori Hashimoto	Q58785	2981

7590

03/26/2004

Sughrue Mion Zinn Macpeak & Seas PLLC
2100 Pennsylvania Avenue NW
Washington, DC 20037

EXAMINER

HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/546,187

Applicant(s)

HASHIMOTO, KAZUNORI

Examiner

Michael W. Hoyer

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Amendment, filed 1/26/04, with respect to the rejection(s) of claim(s) 1 and 5 under 35 USC 103(a) as being unpatentable over Hendricks et al (USPN 5,659,350) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hendricks et al (USPN 5,659,350), in view of Eyer et al (USPN 6,160,545) as described in the claim rejections made below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al (USPN 5,659,350), cited by the Applicant, in view of Eyer et al (USPN 6,160,545), cited by the Examiner.

As to claim 1, note the Hendricks et al reference which discloses a CATV conditional access system. The claimed plurality of analog head ends for distributing picture signals of analog programs and picture signals of transmitted digital programs to terminals provided in respective areas is met by cable headend 208 as shown in Figs. 1 and 3, where picture signals of

Art Unit: 2614

an analog programs and transmitted digital programs (216 in Fig. 3) are distributed to set top terminals 220 in Figs. 1 & 3 (col. 7, line 61 – col. 8, line 14). The claimed digital head end for transmitting the picture signals of the digital programs to the plurality of analog head ends is met by operations center 202 in Figs. 1-3 (col. 7, line 61 – col. 8, line 14 & lines 23-37). The claimed said digital head end transmits to the terminals within the areas, data containing an area code used to recognize the area to which each terminal belongs is met by demographic data (col. 7, lines 46-48 & col. 16, lines 10-18) including subscriber region designation 926 in Figs. 6a and 6b (col. 20 lines 50-67). The Hendricks '350 patent discloses in col. 27, lines 14-16, that the basic database structure at the Operations Center 202 consists of multiple tables, which contain one or more data records, each with multiple fields. In the SERVICE Database file 503 (see col. 28, lines 12-37), Hendricks '350 discloses that a service ID is used to identify the virtual channel used for the desired service (lines 22-23). Moreover, the Hendricks '350 patent discloses that every service also has an assigned local channel (col. 28, line 28), and that the headend performs an equivalent function of a "channel map" that is transmitted to the set-top terminals (col. 27 lines 32-33, also see col. 8, lines 15-22), which is similar to or the same as the claimed channel display number of an analog program that is commonly used in the area to which each terminal belongs. In addition, the Hendricks '350 patent discloses a subscriber region designation 926 that is also transmitted to the set-top terminals in the program information signal (see col. 20 lines 50-67 and Figs. 6a and 6b), and is equivalent to the claimed area code used to recognize the area to which each terminal belongs. Although the Hendricks '350 patent does not explicitly use the terminology of a "channel contrastive table", the Eyer et al patent discloses a region ID (col. 8, lines 7-8), which corresponds to the claimed area code. Moreover, Eyer et al discloses that in

Art Unit: 2614

addition to the IRD or set top box receiving a region ID, the IRD also receives the claimed “channel contrastive table” as met by a “channel map” or “table”, which correlates a “user channel number” (e.g., channel 10 for ABC), a “program ID” or PID, and a source identifier (col. 9, lines 31-36), where the claimed management number that is uniquely allocated to each program and is commonly used in all the areas is met by the PID, and the channel display number used in each area...is met by the user channel number as related to the corresponding regional ID. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of the Hendricks ‘350 patent which discloses the overall CATV conditional access broadcast network with the Eyer et al reference which discloses additional detail about a program table where program IDs are matched with local channel numbers in the region for the advantage of providing global programming to specific regions or areas where the programming may be uniquely assigned to a specific channel display number that is used and known in the users local area. The claimed each of said terminals stores thereinto the area code and the channel contrastive table is met in-part by the Hendricks ‘350 reference which stores the subscriber region and channel map, etc. as described above (also see col. 10, lines 57-67; col. 17, lines 50-67, and col. 29, lines 42-45), and retrieves the corresponding management numbers by comparing the channel display numbers of the analog programs set for each area and the area code is met by col. 11, lines 34-39; and then displays the channel display number of the analog program of the retrieved management number is met by col. 10, lines 57-67; and col. 11, lines 34-39. The Eyer et al reference, which gives additional detail as to the claimed “channel contrastive table”, also discloses storing the area

Art Unit: 2614

code or region ID and the channel contrastive table or channel map in the terminals or IRDs (see col. 8 – col. 9, line 56, specifically lines 48-51).

As to claim 2, the claimed CATV conditional access system wherein both the data indicative of the area code and the data indicative of the channel contrastive table are transmitted from said digital head end to the terminals of the respective areas respectively via a channel used to transmit the picture signal is met by the Hendricks '350 patent, as combined above with Eyer, where the operations center 202 and it's computer assisted packaging equipment (CAP) packages the programs and then creates a program control information signal that is delivered with the program package to the headend 208 and/or set top terminal 220 (see col. 17, lines 15-27 & 50-67 and col. 32, lines 21-49 – specifically lines 45-49 where the program control information is added to the programs to form a single signal for transmission).

As to claim 3, the claimed CATV conditional access system wherein said digital head end transmits data about an analog channel transmission frequency contrastive table to the terminals of respective areas, said analog channel transmission frequency contrastive table comparing the management number with a transmission frequency of an analog program within each of the areas is met by in part by the Hendricks et al (5,659,350) reference (see col. 7, lines 46-48 & col. 16, lines 10-18) including subscriber region designation 926 in Figs. 6a and 6b (col. 20 lines 50-67) and allocating different frequency ranges (col. 9, lines 20-28). As described above in claim 1, the Hendricks '350 patent discloses in col. 27, lines 14-16, that the basic database structure at the Operations Center 202 consists of multiple tables, which contain one or more data records, each with multiple fields. In the SERVICE Database file 503 (see col. 28, lines 12-37), Hendricks '350 discloses that a service ID is used to identify the virtual channel

Art Unit: 2614

used for the desired service (lines 22-23), which is similar to or the same as the claimed management number that is allocated to each analog program. Moreover, Hendricks '350 discloses that every service also has an assigned local channel (line 28), and that the headend performs an equivalent function of a "channel map" that is transmitted to the set-top terminals (col. 27 lines 32-33, also see col. 8, lines 15-22), which is similar to or the same as the claimed channel display number of an analog program that is commonly used in the area to which each terminal belongs. In addition, the Hendricks '350 patent discloses a subscriber region designation 926, which is transmitted to the set-top terminals in the program information signal (see col. 20 lines 50-67 and Figs. 6a and 6b), and is equivalent to the claimed area code used to recognize the area to which each terminal belongs. Furthermore, Hendricks discloses in col. 33, line 33 – col. 34, line 4 & col. 35, line 20 – col. 36, line 6 frequency/bandwidth allocation. Although the 5,659,350 Hendricks et al reference does not specifically disclose a "frequency contrastive table" in as claimed, the Eyer et al reference, as combined in claim 1, meets the claimed each of the terminals stores thereinto the analog channel transmission contrastive table, such that when a channel display number of an analog program is designated, said each terminal retrieves a management number corresponding to the designated channel display number from the channel contrastive table based upon the area code, and said each terminal retrieves a transmission frequency contrastive table so as to be tuned to the retrieved transmission frequency as disclosed in col. 4, lines 32-46 and col. 6, lines 1-5. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the CATV conditional access system of Hendricks et al (5,659,350) with the additional teachings of the Eyer et al reference, which discloses in more detail tuning to a transmission frequency related to

Art Unit: 2614

a program ID or management number. One of ordinary skill in the art would have been led to make such a modification since it is well known to have analog transmission frequency contrastive tables related to a management or program ID number in terminal channel maps associated with video distribution systems.

As to claim 4, the Hendricks et al (5,659,350) reference, as combined with Eyer et al above, further meets the claimed CATV conditional access system wherein the data indicative of the analog channel transmission frequency contrastive table are transmitted from said digital head end to the terminals of the respective areas respectively via a channel used to transmit the picture signal is met by the operations center 202 and its computer assisted packaging equipment (CAP) packages the programs and then creates a program control information signal that is delivered with the program package to the headend 208 and/or set top terminal 220 (see col. 17, lines 15-27 & 50-67 and col. 32, lines 21-49 – specifically lines 45-49 where the program control information is added to the programs to form a single signal for transmission).

As to claim 6, the claimed CATV conditional access system wherein both the data indicative of the area code and the data indicative of the channel contrastive table are transmitted from said digital head end to the terminals of the respective areas respectively via a data transmission channel which is separately provided with the channel for transmitting the picture signal is met by the Hendricks '350 patent, as combined above with Eyer, where the operations center 202 and its computer assisted packaging equipment (CAP) packages the programs and then creates a program control information signal that is delivered with the program package to the headend 208 and/or set top terminal 220 (see col. 8, lines 15-22).

As to claim 7, the claimed CATV conditional access system wherein the data indicative of the analog channel transmission frequency contrastive table are transmitted from said digital head end to the terminals of the respective areas respectively via a data transmission channel which is separately provided with the channel for transmitting the picture signal is met by the Hendricks reference as described above in claim 4 where the operations center 202 and its computer assisted packaging equipment (CAP) packages the programs and then creates a program control information signal that is delivered with the program package to the headend 208 and/or set top terminal 220 (see col. 8, lines 15-22).

As to claim 8, the Eyer et al reference further discloses that the digital head end transmits EMM (Entitlement Management Message) data that includes area code or regional ID information (col. 8, lines 18-27). Eyer discloses the claimed "channel contrastive table" as described above in claim 1. In addition, a NIT or Network Information Table by definition is one of the four mandatory Service Information tables transmitted with every digital broadcast to identify itself. Therefore, a NIT is inherent to a digital broadcast signal. Although, the Eyer et al reference does not specifically disclose that the digital head end transmits NIT data that includes said channel contrastive table. The Examiner takes Official Notice that it is notoriously well known in the art of CATV conditional access systems with digital head ends to transmit or broadcast a Network Information Table (NIT) with a channel contrastive table for the advantage of defining program IDs and what area and channel they correspond to. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to transmit NIT data from the digital head end that includes a channel contrastive table for the advantage given above.

Art Unit: 2614

As to claim 5, note the Hendricks et al reference which discloses a CATV conditional access method. The claimed step of providing a plurality of analog head ends for distributing picture signals of analog programs and picture signals of transmitted digital programs to terminals provided in respective areas is met by cable headend 208 as shown in Figs. 1 and 3, where picture signals of analog programs and transmitted digital programs (216 in Fig. 3) are distributed to terminals 220 in Figs. 1 and 3 (col. 7, line 61 – col. 8, line 14). The claimed step of providing a digital head end for transmitting the picture signals of digital programs to the plurality of analog head ends is met by operations center 202 in Figs. 1-3 (col. 7, line 61 – col. 8, line 14 & lines 23-37). The claimed step of transmitting to the terminals within the areas, data containing an area code used to recognize the area to which the area belongs is met by demographic data (col. 7, lines 46-48 & col. 16, lines 10-18), including subscriber region designation 926 in Figs. 6a and 6b (col. 20 lines 50-67). The Hendricks '350 patent discloses in col. 27, lines 14-16, that the basic database structure at the Operations Center 202 consists of multiple tables, which contain one or more data records, each with multiple fields. In the SERVICE Database file 503 (see col. 28, lines 12-37), Hendricks '350 discloses that a service ID is used to identify the virtual channel used for the desired service (lines 22-23). Moreover, the Hendricks '350 patent discloses that every service also has an assigned local channel (col. 28, line 28), and that the headend performs an equivalent function of a "channel map" that is transmitted to the set-top terminals (col. 27 lines 32-33, also see col. 8, lines 15-22), which is similar to or the same as the claimed channel display number of an analog program that is commonly used in the area to which each terminal belongs. In addition, the Hendricks '350 patent discloses a subscriber region designation 926 that is also transmitted to the set-top

Art Unit: 2614

terminals in the program information signal (see col. 20 lines 50-67 and Figs. 6a and 6b), and is equivalent to the claimed area code used to recognize the area to which each terminal belongs. Although the Hendricks '350 patent does not explicitly use the terminology of a "channel contrastive table", the Eyer et al patent discloses a region ID (col. 8, lines 7-8), which corresponds to the claimed area code. Moreover, Eyer et al discloses that in addition to the IRD or set top box receiving a region ID, the IRD also receives the claimed "channel contrastive table" as met by a "channel map" or "table", which correlates a "user channel number" (e.g., channel 10 for ABC), a "program ID" or PID, and a source identifier (col. 9, lines 31-36), where the claimed management number that is uniquely allocated to each program and is commonly used in all the areas is met by the PID, and the channel display number used in each area... is met by the user channel number as related to the corresponding regional ID. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of the Hendricks '350 patent which discloses the overall CATV conditional access broadcast network with the Eyer et al reference which discloses additional detail about a program table where program IDs are matched with local channel numbers in the region for the advantage of providing global programming to specific regions or areas where the programming may be uniquely assigned to a specific channel display number that is used and known in the users local area. The claimed steps of storing in each of said terminals the area code and the channel contrastive table is met in-part by the Hendricks '350 reference which stores the subscriber region and channel map, etc. as described above (also see col. 10, lines 57-67; col. 17, lines 50-67, and col. 29, lines 42-45), and retrieving the corresponding management numbers from the channel contrastive table by comparing the channel display numbers for selecting the analog

Art Unit: 2614

programs set for each area and the area code is met by col. 11, lines 34-39; and the claimed displaying the channel display number for selecting the analog program of the retrieved management number is met by col. 10, lines 57-67; and col. 11, lines 34-39. The Eyer et al reference, which gives additional detail as to the claimed "channel contrastive table", also discloses storing the area code or region ID and the channel contrastive table or channel map in the terminals or IRDs (see col. 8 – col. 9, line 56, specifically lines 48-51).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Deiss (USPN 5,802,063) – Discloses a conditional access filter as for a packet video signal inverse transport stream, which further includes entitlement management messages (EMM's) that can be used to entitle or deny reception of particular programs in particular area codes.

Kostreski et al (USPN 5,734,589) – Discloses a digital entertainment terminal with channel mapping and channel number, RF and program number identification correspondence.

Kostreski et al (USPN 5,651,010) – Discloses simultaneous overlapping broadcasting of digital programs with RF and program number identification correspondence.

Robinett et al (USPN 6,351,474) – Discloses a network distributed remultiplexer for video program bearing transport streams, which includes EMM and NIT.

Art Unit: 2614

Schein et al (USPN 6,002,394) – Discloses systems and methods for linking television viewers with advertisers and broadcasters

Usui et al (USPN 6,305,018 B1) – Discloses an electronic content guide system and electronic content guide displaying method, which only extracts data it is service area, postal codes (or zip codes) or the like.

Wasilewski (USPN 6,215,530 B1) – Discloses logical and composite channel mapping in an MPEG network

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is (703) 305-6954. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (703) 305-4795.

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Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to customer service whose telephone number is **(703) 308-HELP**.

Michael W. Hoyer
March 18, 2004


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600